Frank Zufall

List of Publications by Year
in descending order

115 papers	9,916 citations	31976 53 h-index	36028 97 g-index
121 all docs	121 docs citations	121 times ranked	5804 citing authors

#	Article	IF	Citations
1	BTDAzo: A Photoswitchable TRPC5 Channel Activator**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	7
2	Sensory Detection by the Vomeronasal Organ Modulates Experience-Dependent Social Behaviors in Female Mice. Frontiers in Cellular Neuroscience, 2021, 15, 638800.	3.7	14
3	A central mechanism of analgesia in mice and humans lacking the sodium channel NaV1.7. Neuron, 2021, 109, 1497-1512.e6.	8.1	42
4	A diacylglycerol photoswitching protocol for studying TRPC channel functions in mammalian cells and tissue slices. STAR Protocols, 2021, 2, 100527.	1.2	6
5	Danger perception and stress response through an olfactory sensor for the bacterial metabolite hydrogen sulfide. Neuron, 2021, 109, 2469-2484.e7.	8.1	14
6	Cyclic regulation of Trpm4 expression in female vomeronasal neurons driven by ovarian sex hormones. Molecular and Cellular Neurosciences, 2020, 105, 103495.	2.2	11
7	GÎ±i2+ vomeronasal neurons govern the initial outcome of an acute social competition. Scientific Reports, 2020, 10, 894.	3.3	13
8	Chemosensory Cell-Derived Acetylcholine Drives Tracheal Mucociliary Clearance in Response to Virulence-Associated Formyl Peptides. Immunity, 2020, 52, 683-699.e11.	14.3	63
9	Trpc5 deficiency causes hypoprolactinemia and altered function of oscillatory dopamine neurons in the arcuate nucleus. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15236-15243.	7.1	22
10	Bacterial MgrB peptide activates chemoreceptor Fpr3 in mouse accessory olfactory system and drives avoidance behaviour. Nature Communications, 2019, 10, 4889.	12.8	30
11	Central role of G protein GÎ±i2 and GÎ±i2 ⁺ vomeronasal neurons in balancing territorial and infant-directed aggression of male mice. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5135-5143.	7.1	51
12	A calcium optimum for cytotoxic T lymphocyte and natural killer cell cytotoxicity. Journal of Physiology, 2018, 596, 2681-2698.	2.9	64
13	Mapping protein interactions of sodium channel Na _V 1.7 using epitopeâ€tagged geneâ€targeted mice. EMBO Journal, 2018, 37, 427-445.	7.8	54
14	PhoDAGs Enable Optical Control of Diacylglycerol-Sensitive Transient Receptor Potential Channels. Cell Chemical Biology, 2018, 25, 215-223.e3.	5.2	47
15	The structure of Orco and its impact on our understanding of olfaction. Journal of General Physiology, 2018, 150, 1602-1605.	1.9	16
16	P/Q Type Calcium Channel Cav2.1 Defines a Unique Subset of Glomeruli in the Mouse Olfactory Bulb. Frontiers in Cellular Neuroscience, 2018, 12, 295.	3.7	6
17	Ca2+-activated Clâˆ’ currents in the murine vomeronasal organ enhance neuronal spiking but are dispensable for maleâ€“male aggression. Journal of Biological Chemistry, 2018, 293, 10392-10403.	3.4	13
18	Virus-Mediated Overexpression of Vomeronasal Receptors and Functional Assessment by Live-Cell Calcium Imaging. Methods in Molecular Biology, 2018, 1820, 43-56.	0.9	2

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19	Trpm5 expression in the olfactory epithelium. Molecular and Cellular Neurosciences, 2017, 80, 75-88.	2.2	17
20	Type 3 inositol 1,4,5-trisphosphate receptor is dispensable for sensory activation of the mammalian vomeronasal organ. Scientific Reports, 2017, 7, 10260.	3.3	17
21	Organization and Plasticity of Sodium Channel Expression in the Mouse Olfactory and Vomeronasal Epithelia. Frontiers in Neuroanatomy, 2017, 11, 28.	1.7	7
22	Functional Overexpression of Vomeronasal Receptors Using a Herpes Simplex Virus Type 1 (HSV-1)-Derived Amplicon. PLoS ONE, 2016, 11, e0156092.	2.5	11
23	A Sensor for Low Environmental Oxygen in the Mouse Main Olfactory Epithelium. Neuron, 2016, 92, 1196-1203.	8.1	45
24	Strain-specific Loss of Formyl Peptide Receptor 3 in the Murine Vomeronasal and Immune Systems. Journal of Biological Chemistry, 2016, 291, 9762-9775.	3.4	38
25	The sensing of bacteria: emerging principles for the detection of signal sequences by formyl peptide receptors. Biomolecular Concepts, 2016, 7, 205-214.	2.2	30
26	Pregnancy and estrogen enhance neural progenitor-cell proliferation in the vomeronasal sensory epithelium. BMC Biology, 2015, 13, 104.	3.8	42
27	Hypothalamic gonadotropin-releasing hormone (GnRH) receptor neurons fire in synchrony with the female reproductive cycle. Journal of Neurophysiology, 2015, 114, 1008-1021.	1.8	14
28	Innate Predator Odor Aversion Driven by Parallel Olfactory Subsystems that Converge in the Ventromedial Hypothalamus. Current Biology, 2015, 25, 1340-1346.	3.9	138
29	Recognition of Bacterial Signal Peptides by Mammalian Formyl Peptide Receptors. Journal of Biological Chemistry, 2015, 290, 7369-7387.	3.4	85
30	A Binary Genetic Approach to Characterize TRPM5 Cells in Mice. Chemical Senses, 2015, 40, 413-425.	2.0	34
31	A Family of Nonclassical Class I MHC Genes Contributes to Ultrasensitive Chemodetection by Mouse Vomeronasal Sensory Neurons. Journal of Neuroscience, 2014, 34, 5121-5133.	3.6	79
32	A wide range of pheromone-stimulated sexual and reproductive behaviors in female mice depend on G protein GÎ±o. BMC Biology, 2014, 12, 31.	3.8	56
33	Altered synaptic transmission at olfactory and vomeronasal nerve terminals in mice lacking Nâ€type calcium channel Cav2.2. European Journal of Neuroscience, 2014, 40, 3422-3435.	2.6	9
34	A simple, economic, timeâ€resolved killing assay. European Journal of Immunology, 2014, 44, 1870-1872.	2.9	55
35	Formyl peptide receptors from the innate immune system and the vomeronasal organ recognize pathogen derived peptides. Journal of Neuroimmunology, 2014, 275, 91-92.	2.3	0
36	TRPs in Olfaction. Handbook of Experimental Pharmacology, 2014, 223, 917-933.	1.8	13

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37	The Electrovomeronasogram: Field Potential Recordings in the Mouse Vomeronasal Organ. Methods in Molecular Biology, 2013, 1068, 221-236.	0.9	3
38	The Receptor Guanylyl Cyclase Type D (GC-D) Ligand Uroguanylin Promotes the Acquisition of Food Preferences in Mice. Chemical Senses, 2013, 38, 391-397.	2.0	43
39	Mouse urinary peptides provide a molecular basis for genotype discrimination by nasal sensory neurons. Nature Communications, 2013, 4, 1616.	12.8	81
40	Mammalian-Specific OR37 Receptors Are Differentially Activated by Distinct Odorous Fatty Aldehydes. Chemical Senses, 2012, 37, 479-493.	2.0	33
41	Formyl Peptide Receptors from Immune and Vomeronasal System Exhibit Distinct Agonist Properties. Journal of Biological Chemistry, 2012, 287, 33644-33655.	3.4	51
42	From genes to social communication: molecular sensing by the vomeronasal organ. Trends in Neurosciences, 2012, 35, 597-606.	8.6	136
43	On the scent of mitochondrial calcium. Nature Neuroscience, 2012, 15, 653-654.	14.8	3
44	Link Between Pain and Olfaction in an Inherited Sodium Channelopathy. Archives of Neurology, 2012, 69, 1119-23.	4.5	22
45	Newborn Interneurons in the Accessory Olfactory Bulb Promote Mate Recognition in Female Mice. Frontiers in Neuroscience, 2011, 5, 113.	2.8	65
46	Loss-of-function mutations in sodium channel Nav1.7 cause anosmia. Nature, 2011, 472, 186-190.	27.8	267
47	G protein GÎ±o is essential for vomeronasal function and aggressive behavior in mice. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12898-12903.	7.1	159
48	Receptor guanylyl cyclases in mammalian olfactory function. Molecular and Cellular Biochemistry, 2010, 334, 191-197.	3.1	56
49	An Olfactory Subsystem that Detects Carbon Disulfide and Mediates Food-Related Social Learning. Current Biology, 2010, 20, 1438-1444.	3.9	151
50	Grueneberg Ganglion Neurons Are Finely Tuned Cold Sensors. Journal of Neuroscience, 2010, 30, 7563-7568.	3.6	54
51	Ca2+ Extrusion by NCX Is Compromised in Olfactory Sensory Neurons of OMPâˆ’/âˆ’ Mice. PLoS ONE, 2009, 4, e4260.	2.5	55
52	Ca²⁺â€“Calmodulin Feedback Mediates Sensory Adaptation and Inhibits Pheromone-Sensitive Ion Channels in the Vomeronasal Organ. Journal of Neuroscience, 2009, 29, 2125-2135.	3.6	60
53	Receptor guanylyl cyclases in mammalian olfaction: from genes to function. BMC Pharmacology, 2009, 9, .	0.4	0
54	Structural requirements for the activation of vomeronasal sensory neurons by MHC peptides. Nature Neuroscience, 2009, 12, 1551-1558.	14.8	120

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55	Functional Analysis of the Guanylyl Cyclase Type D Signaling System in the Olfactory Epithelium. Annals of the New York Academy of Sciences, 2009, 1170, 173-176.	3.8	13
56	Subsystem Organization of the Mammalian Sense of Smell. Annual Review of Physiology, 2009, 71, 115-140.	13.1	263
57	Accessory Olfactory System. , 2008, , 783-814.		3
58	Pheromonkommunikation bei MÃusen: Vom Gen zum Verhalten. E-Neuroforum, 2008, 14, 159-165.	0.1	0
59	Contribution of the receptor guanylyl cyclase GC-D to chemosensory function in the olfactory epithelium. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14507-14512.	7.1	199
60	Patch-Clamp Analysis of Gene-Targeted Vomeronasal Neurons Expressing a Defined V1r or V2r Receptor: Ionic Mechanisms Underlying Persistent Firing. Journal of Neurophysiology, 2007, 98, 2357-2369.	1.8	38
61	Mammalian pheromone sensing. Current Opinion in Neurobiology, 2007, 17, 483-489.	4.2	84
62	MHC peptides and the sensory evaluation of genotype. Trends in Neurosciences, 2006, 29, 100-107.	8.6	178
63	Pheromonal recognition memory induced by TRPC2-independent vomeronasal sensing. European Journal of Neuroscience, 2006, 23, 3385-3390.	2.6	107
64	Pheromonal communication in vertebrates. Nature, 2006, 444, 308-315.	27.8	414
65	Signaling in the Chemosensory Systems. Cellular and Molecular Life Sciences, 2006, 63, 1476-1484.	5.4	120
66	Essential Role of the Main Olfactory System in Social Recognition of Major Histocompatibility Complex Peptide Ligands. Journal of Neuroscience, 2006, 26, 1961-1970.	3.6	275
67	Neurobiology of TRPC2: from gene to behavior. Pflugers Archiv European Journal of Physiology, 2005, 451, 61-71.	2.8	70
68	Transduction Channels in the Vomeronasal Organ. , 2005, , 135-152.		1
69	Connexins and Olfactory Synchronicity: Toward the Olfactory Code. Neuron, 2005, 46, 693-694.	8.1	4
70	MHC Class I Peptides as Chemosensory Signals in the Vomeronasal Organ. Science, 2004, 306, 1033-1037.	12.6	546
71	A Contextual Model for Axonal Sorting into Glomeruli in the Mouse Olfactory System. Cell, 2004, 117, 817-831.	28.9	298
72	Social motivation is reduced in vasopressin 1b receptor null mice despite normal performance in an olfactory discrimination task. Hormones and Behavior, 2004, 46, 638-645.	2.1	123

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73	A Diacylglycerol-Gated Cation Channel in Vomeronasal Neuron Dendrites Is Impaired in TRPC2 Mutant Mice. Neuron, 2003, 40, 551-561.	8.1	295
74	Importance of the CNGA4 channel gene for odor discrimination and adaptation in behaving mice. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4299-4304.	7.1	63
75	Altered sexual and social behaviors in trp2 mutant mice. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6376-6381.	7.1	516
76	Pheromone detection by mammalian vomeronasal neurons. Microscopy Research and Technique, 2002, 58, 251.	2.2	63
77	Deficient pheromone responses in mice lacking a cluster of vomeronasal receptor genes. Nature, 2002, 419, 70-74.	27.8	338
78	Central Role of the CNGA4 Channel Subunit in Ca2+-Calmodulin-Dependent Odor Adaptation. Science, 2001, 294, 2172-2175.	12.6	124
79	Cyclic GMP evoked calcium transients in olfactory receptor cell growth cones. NeuroReport, 2000, 11, 677-681.	1.2	19
80	Ultrasensitive pheromone detection by mammalian vomeronasal neurons. Nature, 2000, 405, 792-796.	27.8	557
81	Amplification of Odor-Induced Ca²⁺ Transients by Store-Operated Ca²⁺ Release and Its Role in Olfactory Signal Transduction. Journal of Neurophysiology, 2000, 83, 501-512.	1.8	75
82	Blocking Adenylyl Cyclase Inhibits Olfactory Generator Currents Induced by â€œIP3-Odorsâ€. Journal of Neurophysiology, 2000, 84, 575-580.	1.8	63
83	The Cellular and Molecular Basis of Odor Adaptation. Chemical Senses, 2000, 25, 473-481.	2.0	260
84	Impaired Odor Adaptation in Olfactory Receptor Neurons after Inhibition of Ca2+/Calmodulin Kinase II. Journal of Neuroscience, 1999, 19, RC19-RC19.	3.6	82
85	Widespread expression of olfactory cyclic nucleotide-gated channel genes in rat brain: Implications for neuronal signalling. , 1999, 32, 1-12.		50
86	Role of Cyclic GMP in Olfactory Transduction and Adaptationa. Annals of the New York Academy of Sciences, 1998, 855, 199-204.	3.8	26
87	Visualizing Odor Detection in Olfactory Cilia by Calcium Imaginga. Annals of the New York Academy of Sciences, 1998, 855, 205-207.	3.8	10
88	Imaging Odor-Induced Calcium Transients in Single Olfactory Cilia: Specificity of Activation and Role in Transduction. Journal of Neuroscience, 1998, 18, 5630-5639.	3.6	144
89	Cyclic nucleotide gated channels as regulators of CNS development and plasticity. Current Opinion in Neurobiology, 1997, 7, 404-412.	4.2	108
90	Identification of a Long-Lasting Form of Odor Adaptation that Depends on the Carbon Monoxide/cGMP SecondMessenger System. Journal of Neuroscience, 1997, 17, 2703-2712.	3.6	97

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91	Calcium Entry through Cyclic Nucleotide-Gated Channels in Individual Cilia of Olfactory Receptor Cells: Spatiotemporal Dynamics. Journal of Neuroscience, 1997, 17, 4136-4148.	3.6	146
92	Modulation by cyclic GMP of the odour sensitivity of vertebrate olfactory receptor cells. Proceedings of the Royal Society B: Biological Sciences, 1996, 263, 803-811.	2.6	36
93	Cyclic Nucleotide-Gated Channels, Nitric Oxide, and Neural Function. Neuroscientist, 1996, 2, 24-32.	3.5	8
94	Rat hippocampal neurons express genes for both rod retinal and olfactory cyclic nucleotide-gated channels: novel targets for cAMP/cGMP function.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 10440-10445.	7.1	110
95	A calcium-permeable cGMP-activated cation conductance in hippocampal neurons. NeuroReport, 1995, 6, 1761-1765.	1.2	88
96	Block of cyclic nucleotide-gated channels in salamander olfactory receptor neurons by the guanylyl cyclase inhibitor LY83583. Journal of Neurophysiology, 1995, 74, 2759-2762.	1.8	58
97	Regulation of cyclic nucleotide-gated channels and membrane excitability in olfactory receptor cells by carbon monoxide. Journal of Neurophysiology, 1995, 74, 1498-1508.	1.8	75
98	Cyclic Nucleotide-Gated Ion Channels and Sensory Transduction in Olfactory Receptor Neurons. Annual Review of Biophysics and Biomolecular Structure, 1994, 23, 577-607.	18.3	187
99	The cyclic nucleotide gated channel of olfactory receptor neurons. Seminars in Cell Biology, 1994, 5, 39-46.	3.4	21
100	Retinal ganglion cells express a cGMP-gated cation conductance activatable by nitric oxide donors. Neuron, 1994, 12, 155-165.	8.1	237
101	Divalent cations block the cyclic nucleotide-gated channel of olfactory receptor neurons. Journal of Neurophysiology, 1993, 69, 1758-1768.	1.8	111
102	Membrane Currents and Mechanisms of Olfactory Transduction. Novartis Foundation Symposium, 1993, 179, 115-130.	1.1	2
103	Cyclic AMP-Gated Cation Channels of Olfactory Receptor Neurons. , 1993, 66, 135-145.		1
104	Olfactory receptor neurons from antennae of developing male Manduca sexta respond to components of the species-specific sex pheromone in vitro. Journal of Neuroscience, 1992, 12, 2523-2531.	3.6	54
105	Patch-clamp recordings of spiking and nonspiking interneurons from rabbit olfactory bulb slices: Membrane properties and ionic currents. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 170, 145-52.	1.6	22
106	Patch-clamp recordings of spiking and nonspiking interneurons from rabbit olfactory bulb slices: GABA- and other transmitter receptors. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 170, 153-9.	1.6	18
107	Inhibition of the olfactory cyclic nucleotide gated ion channel by intracellular calcium. Proceedings of the Royal Society B: Biological Sciences, 1991, 246, 225-230.	2.6	102
108	Single odor-sensitive channels in olfactory receptor neurons are also gated by cyclic nucleotides. Journal of Neuroscience, 1991, 11, 3565-3572.	3.6	152

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109	Ionic currents of cultured olfactory receptor neurons from antennae of male Manduca sexta. Journal of Neuroscience, 1991, 11, 956-965.	3.6	63
110	Desensitization and resensitization rates of glutamate-activated channels may regulate motoneuron excitability. Journal of Neurophysiology, 1991, 66, 1166-1175.	1.8	19
111	Glutamate-activated channels in adult rat ventral spinal cord cells. Journal of Neurophysiology, 1991, 66, 369-378.	1.8	23
112	Dual activation of a sex pheromone-dependent ion channel from insect olfactory dendrites by protein kinase C activators and cyclic GMP.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 8520-8524.	7.1	99
113	Spectral and polarized light sensitivity of photoreceptors in the compound eye of the cricket (Gryllus) Tj ETQq1 1 0.784314 rgBT /Overlo Physiology, 1989, 164, 597-608.	1.6	70
114	Similarities between the effects of lindane (Î³-HCH) and picrotoxin on ligand-gated chloride channels in crayfish muscle membrane. Brain Research, 1989, 503, 342-345.	2.2	20
115	Acetylcholine activates a chloride channel as well as glutamate and GABA. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1988, 163, 609-620.	1.6	37